CLAIMS

1. A cementing slurry comprising:

- an aluminous cement the alumina content of which is at least 30%;
- a microsilica with a granulometry in the range 0.1 to 20 μm the percentage of which is less than 35% by weight with respect to the weight of cement;
- mineral particles with a granulometry in the range 0.5 to 500 μm the percentage of which is less than 35% by weight with respect to the cement, the percentage of said particles remaining below the percentage of said microsilica;
- a hydrosoluble fluidifying agent the percentage of which is in the range 0.2% to 3% with respect to the weight of cement;
- a retarding agent to control the setting time of the slurry;
- water in a quantity of at most 40% with respect to the cement.

2. A slurry according to claim 1, in which the hydrosoluble polymer is a polynaphthalene sulphonate and/or a polyxyethylene polycarboxylate.

3. A slurry according to one of the preceding claims, in which the water content is below 30%, in particular equal to 27%.

4. A slurry according to one of the preceding claims, further comprising a quantity, in aqueous solution, of at least one associative polymer containing hydrophilic motifs Hy and hydrophobic motifs Hb containing C1 to C30 alkyl, aryl or alkyl-aryl groups.

5. A slurry according to claim 4, in which said polymer has a molecular mass in the range 10^4 to 5×10^6 daltons and a number of hydrophobic motifs Hb in the range 0.5% to 60%.

6. A slurry according to one of the preceding claims, comprising (with respect to the weight of cement):

- 24% of microsilica;
- 20% of mineral particles;

- 0.5% of fluidifying polymer.

7. A slurry according to one of claims 4 to 6, comprising 0.5% of associative polymer.

8. Use of a slurry according to one of the preceding claims, to cement a well in an acidic environment.